

Length: 1906 July 7, 1996 12:35 Type: N Check: 7122 ..

1 CATTGGGTCA CGCGGTGGCG GCGCTCTAGA ATAGTGGATC CCCCCGGGCTG  
51 CAGGAATTTCG ATTCGAGGCC ACGAAGGCCG GCGGCGCGGC GCAnGCACCG  
101 GCCCCGGGGAn AGGChCCATG AGCGGATCnC nGAACnATGA CAAAAGACAA  
151 TTTCTGCTGG AGCGACTGCT GGATGCAGTG AAACAGTGCC AGATCCGCTT  
201 TnGAGGGAGA AAGGAGATTG CCTCGGATTC CGACAGCAGG GTCACCTGTC  
251 TGTGTGCCCA GTTTGAAGCC GTCCTGCAGC ATGGCTTGAA GAGGAGTCGA  
301 GGATTGGCAC TCACAGCGGC AGCGATCAAG CAGGCAGCGG GCTTTGCCAG  
351 CAAAACCGAA ACAGAGCCCCG TGTTCTGGTA CTACGTGAAG GAGGTCCCTCA  
401 ACAAGCACGA GCTGCAGCGC TTCTACTCCC TGCGCCACAT CGCCTCAGAc  
451 gTGGGCCGGG GTCGCGCCTG GCTGcGCTGT GCCCTCAACG AACACTCCCT  
501 GGAGCGCTAC CTGCACATGC TCCTGGCCGA CCGCTGCAGG CTGAGCACTT  
551 TTTATGAAGA CTGGTCTTTT GTGATGGaTG AAGAAAGGTC CAGTATGCTT  
601 CCTACCATGG CAGCAGGTCT GAACTCCATA CTCTTTGCGA TTAACATCGA  
651 CAACAAGGAT TTGAACGGGC AGAGTAAGTT TGCTCCCACC GTTTCAGACC  
701 TCTTAAAGGA GTCAACGCAG AACGTGACCT CCTTGCTGAA GGAGTCCACC  
751 CAAGGAGtGA GCAGCCTGTT CAGGGAGATC ACAGcCTcCT cTGCCGTcTC  
801 CATCctCATC AAACCTGAAC AGGAGACCGA CCCTTGCCCTG TCGTGTCCAG  
851 GAATGTCAGT GCTGATGCCA AATGCAAAAA GGAGCGGAAG AAGAAAAAGA

FIG. 3A - |

901 AAGTGACCAA CATAATCTCA TTTGATGATG AGGAAGATGA GCAGAACTCT  
951 GGGGACGTGT TTAAAAAGAC ACCTGGGGCA GGGGAGAGCT CAGAGGACAA  
1001 CTCCGACCGC TCCTCTGTCA ATATCATGTC CGCCTTTGAA AGCCCCTTCG  
1051 GGCCTAACTC CAATGGAATC AGAGCAGCAA CTCATGGAAA ATTGATTCCC  
1101 TGTCTTTGAA CGGGGAGTTT GGGTACCAGA AGCTTGATGT GAAAAGCATC  
1151 GAtGAtGAAG ATgTGGATGA AAACGAAGAT GACgTGTATG GAAACTCATC  
1201 AGGAAGGAAG CACAGGGGCC ACTCGGAGTC GCCCGAGAAG CCACTGGAAG  
1251 GGAACACCTg CCTCTCCcAG ATGCACAGCT GGgCtCCGCT GAAGgTgCTG  
1301 CaCAaTGACT CCGACATCCT CTTCCCTGTC AGTGGCGTGG gCTCCTACAG  
1351 CCCAGCAGAT gCCCCCCTCG GAAGCCTGGA GAACGGGACA GGACCAGAGG  
1401 ACCACGTTCT CCCGGATCCT GGACTTCGGT ACAGTGTGGA AGCCAGCTCT

FIG. ~~3B~~ 3A-2

1451 CCAGGCCACG GAAGTCCTCT GAGCAGCCTG TTACTTCTGC CTCAGTGCCA  
1501 GAGTCCATGA CAATTAGTGA ACTGCGCCAG GCCACTGTGG CCATGATGAA  
1551 CAGGAAGGAT GAGCTGGAGG AGGAGAACAG ATCACTGCGA AACCTGCTCG  
1601 ACGGTGAGAT GGAGCACTCA GCCGCGCTCC GGCAAGAGGT GGACACCTTG  
1651 AAAAGGAAGG TGGCTGAACA GGAGGAGCGG CAGGGCATGA AGGTCCAGGC  
1701 GCTGGCCAGC TATCTTTGCT ATTTTGTGAG GAGATTCTAA CCCCACGTGA  
1751 GAACCATGTG GTGGAGAAAT GGAGGGAGAG AGAAATCCAA CAGTTCCTGA  
1801 TAGTCTCATT TGAGCTCCTG GATCCAGTCT TTCCTGAAGC TGTGTTTCCT  
1851 CTGGACTTTT CATGTATGTG AGCCAATAAA TTGCTTTCAT TCCTTGAAAA  
1901 AAAAAA

FIG. ~~3A-3~~

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TRANSLATE of: 9hhh check: 7122 from: 1 to: 1906  
generated symbols 1 to: 635.

9hhh.pep Length: 604 August 23, 1996 15:03 Type: P Check: 4554

1 XTGPGXGXMS GSXNXDKRQF LLERLLDAVK QCQIRFXGRK EIASDSDSRV  
51 TCLCAQFEAV LQHGLKRSRG LALTAATAIKQ AAGFASKTET EPVFWYYVKE  
101 VLNKHELQRF YSLRHIAADV GRGRAWLRCA LNEHSLZERYL HMLLADRCL  
151 STFYEDWSFV MDEERSMLP TMAAGLNSIL FAINIDNKOL NGQSKFAPTV  
201 SDLLKESTQN VTSLLKESTQ GVSSLFREIT ASSAVSILIK PEQETDPCLS  
251 CPGMSVLMPN AKRSGARKRK \*PT\*SHLMMR KMSRTLGTCL KRHLGQGRAQ  
301 RTTPTAPLSI SCPPLKAPSG LTPMESEQQL MEN\*FPVFER GVWVPEA\*CE  
351 KHR\*\*RCG\*K RR\*RVWKLIR KEAQGPLGVA REATGREHLP LPDAQLGSAE  
401 GAAQ\*LRHPL PCQWRGLLOP SRCPPRKPGZ RDRTRGPRSP GSWTSVQCGS  
451 QLSRPRKSSE QPVTSASVPE SMTISELRQA TVAMMNRKDE LEEENRSLRN  
501 LLDGEMEHSALRQEVDTLK RKVAEQEERQ GMKVQALASY LCYFVRRF\*P  
551 HVRTMWWRNG GREKSNSS\*\* SHLSSWIQSF LKLCFLWTFH VCEPINCFS  
601 LKKK

FIG. 30 38

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clone 10 Length: 2631 August 23, 1996 17:18 Type: N Check: 5107 ..

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1  CCCcTcTcAC AGCcCAGGCC ATCCAAGAGG GgCTGAGGAA AGAGCCCATC
51  cACCGcGTGT cTGCAGcGGA GcTGGGAGGG AAGGTGAACC GGGCAcTACA
101 GCAAGTGGGA GGTcTGAAGA GCCCTTGGAG GGGAGAATAT AAAGAACCAA
151 GACATCCACc GCCAAATCAA GCCaAtTACC ACCAGACCcT CcATGCCcAg
201 CCGAGAGAGc TtTcGCCAAG GGCCCCcAGGG CCCCCGCCcAg CTGAGGAGAC
251 AACAggCAGA GCCCCcTAAGc TCCAGCcTCC TcTCCCACCA GAGCCCCCAG
301 AGCCaAACAA GTcTCCtCCC ttGACTttGA GCAAGGAGGA GTcTGGGATG
351 TGGGAACCCT TACcTctGTC cTCCCTGGAG CCAGCCCCCTG CCAGAAACCC
401 CAGcTCACCA GAGCGGAAAG CAACCGTCCC GGAGCAGGAA CTGCAGCAGC
451 TGGAAATAGA ATTATTCCTC AACAGCCTGT CCCAGcCATT TtTcTGGAG
501 GAGCAGGAGC AAATTCTcTc GTGCCTCAGC ATCGACAGCC TCTCCctGTC
551 GGATGACAGT GAGAAGAACC CATCAAAGGC CTCTCAAAGC TCGCGGGACA
601 CCCTGAGCTC AGGCGTACAC TCCTGGAGCA GcCAGGCCGA GgcTCGAAGc
651 TCCAGCTGGA ACATGGTGcT GGCCCCGGGgg CgGCCCACCG ACACCCCCAAG
701 CTATTTCAAT GGTGTGAAAG TCCAAATACA GTCTCTTAAT GGTGAACACC
751 TGCACATCCG GGAGTTCCAC CGGGTCAAAG TGGGAGACAT CGCCACTGGC
801 ATCAGCAGCC AGATCCCAGC TGCAGCCTTC AGCTTGGTCA CCAAAGACGG
851 GCAGCCTGTT CGCTACGACA TGGAGGTGCC AGACTCGGGC ATCGACCTGC
901 AGTGCACACT GGGCCCTGAT GGCAGCTTCG CCTGGAGCTG GAGGCTCAAG
951 CATGGCCAGC TGGAGAACAG GCCCTAACCC TGCCCTCCAC CGCCGGcTCC
1001 ACACTGCCCG aAAGCAGCCT TCCTGCTCGG tGCACGATGC TGCCCTGaAA
1051 AcACAGGcTC AGCcGTTCCC AgGGgATyTG .CCAGcCCCC cGGcTcArCA
1101 G.tGGGaAcC AGGGcctcG. CAGC.AGC.A AGGT.gGGGG CAAGC.AGAA
1151 TGCcTCCCAG GATTTcACA. CcTGAGCCC. TGCCCCA.CC cTGcTgaada
1201 AAaAyT.CC GCcAcGtGAA GaGAcAGaAG GAGGATGG.C AGGAgtt..A
1251 CcTygGGGAA aCaAAACAGg gaTcTTt.tT cTGcCCcTGc TCCAGT.cGA

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FIG. ~~4~~ 4-1

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1301 gTGGCCTG. ACCCGcTTGG A.TCagtGAC CATTtGtTGG CAGA.CAGGG  
1351 GagAgCAGcT TCCAGCcTGG gTCAGAAGGG GTGGGcGAGC CcTtGgGCCC  
1401 cTcAcCCT.c CAGGcTGcTG tG.AGAGTGT CAAGTGTtGTA AGGG.CCCAA  
1451 A.cTcAGG.T TCAGTGCAGA ACCagGT.CA GCAGGTATGC CCGCCCCG.TA  
1501 GGTAA..GG GGGCCcTcT. AAACCCCTTG cCT.GGCCT. CAcCT.GGCC  
1551 AGCTCA.CCC cTTTTGGGTG TAGGGGAAAA GAATGCCTGA CCCTGGGAAG  
1601 GCTWCCCTGG TAGAATACAC CACACTTTTC AGGTTGTTGC AACACAGGTC  
1651 CTGAGTTGAC CTCTGGTTCA GCCAAGGACC AAAGAAGGTG TGTAAGTGAA  
1701 GTGGTTCTCA gT.CCCCAgA CATgTgCCCC TTTGCTGCTG GCTACCACTC  
1751 TTCCCCAgAg CAGCAGGcCC CgAgCCCCCTT CAGGcCCAgC AcTGcCCCCAG  
1801 AcTCgCTGGC aCTCAGTTCC CTCATCTGTA AAGGTGAAGG GTGATGCAGG  
  
1851 ATATGCCTGA CAGGAACAGT CTGTGGAtGG AcATGATCAg TGcT.AAGG.  
1901 AAAGCAGcAG AGaGAGACgy TCCGGCGCCC CAg.CCCCAc T.ATCAGTgT  
1951 .CCAgCGTGC T.GGTT.CCC CAg.AGCACA GcT.CAg.CA TcA.CACTGA  
2001 CACT.CAcCC T.GCCcTGCC CCT.GGCCA. GAgGGTACTG CCG.ACGGCA  
2051 CTTTGCAc.T CTGATG.ACC TCAAAGCACT TTCATGgcT. GcCCTcT..G  
2101 GCAGGG.CAG GG.CAGGG.C AgTGAcA.CT GTAgG.AGCA TA.gCAA.GC  
2151 CAgGAGATGG GGTG.AAGGG A.CACAGTCT TGAGCTGTCC A.CATGCATG  
2201 TGAcT.CCTC AAAcCTcTT. .CCAG.ATTT CTCTAAGAAT AGCA.CCCCC  
2251 TT.CCCCATTT GCCCCAGCTT AgCCTCTTCT CCCAGGGGAG CTA.CTCAgG  
2301 ACTCACGTAg CATTAAATCA GCTGTG.AAT CGTCAGGGGG TGTCTGCTAg  
2351 CCTCAACCTC CTGGGGCaGG GGACgCCGAg ACTCCGTGGG AgAAgCTCAT  
2401 TCCcCaCATCT TGCCAAGACA gCCTTT.GTC CAgCTGTCCA CATTGAgtCA  
2451 gACTGCTCCC GGGGAgAgAg cCCCCGcCCC CAgCACATAA AGAACTGCAG  
2501 CCTTGGTACT GCAGAGTCTG GGTGTAGAG AACTCTTTGT AAGCAATAAA  
2551 GTTTGGGGTG ATGACAAATG TTAAAAAAG GCCTTCGTGG CCTCGAATCA  
2601 AGCTTATCGA TACCGTCGAC CTCGAGGGGG G

FIG. 4-2

~~12/46~~

1 AGC GGG GGG ACT GTG CCG TGT GGA ACG TGT AGC TGT TGA AGG TGG ACT CTG TTA CCA TTG  
31  
61 AGG ATG TTT GGA GGA TGA GTA TGT GTG GCA GAG GCA CAC ATA AAC AGG CAG AGA CCC TTT  
91  
121 GCC CCT GCC TTT CTC CCC CAA CCC AAG GCT GAC CTG TGT TCT CCC AGG TCT GGG ATT CTA  
151  
181 AGT GAC CTG CTC TGT GTT TGG TCT CTC TCA GGA TGA GCA CAA GCC TGG GAG ATG GCA GTG  
211  
241 ATG GAA ATG GCC TGC CCA GGT GCC CCT GGC TCA GCA GTG GGG CAG CAG AAG GAA CTC CCC  
271  
M E M A C P G A P G A V G Q Q K E L P  
301 AAG CCA AAG GAG AAG ACG CCG CCA CTG GGG AAG AAA CAG AGC TCC GTC TAC AAG CTT GAG  
331  
K P K E K T P P P L G K Q S S V Y K L E  
361 GCC GTG GAG AAG AGC CCT GTG TTC TGC GGA AAG TGG GAG ATC CTG AAT GAC GTG ATT ACC  
391  
A V E K S P V F C G K W E I L N D V I T  
421 AAG GGC ACA GCC AAG GAA GGC TCC GAG GCA GGG CCA GCT GCC ATC TCT ATC ATC GCC CAG  
451  
K G T A K E G S E A G P A A I S I A Q  
481 GCT GAG TGT GAG AAT AGC CAA GAG TTC AGC CCC ACC TTT TCA GAA CGC ATT TTC ATC GCT  
511  
A E C E N S Q E F S P T F S E R I F I A  
541 GGG TCC AAA CAG TAC AGC CAG TCC GAG AGT CTT GAT CAG ATC CCC AAC AAT GTG GCC CAT  
571  
G S K Q Y S S Q S E S L D Q I P N N V A H

~~FIG. 6A~~

FIG. 6-1

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601 GCT ACA GAG GGC AAA ATG GCC CGT GTG TGT TGG AAG GGA AAG CGT CGC AGC AAA GCC CGG  
A T E G K M A R V C W K G K R R S K A R  
661 AAG AAA CGG AAG AAG AGC TCA AAG TCC CTG GCT CAT GCA GGA GTG GCC TTG GCC AAA  
K K R K K S S K S L A H A G V A L A K  
721 CCC CTC CCC AGG ACC CCT GAG CAG GAG AGC TGC ACC ATC CCA GTG CAG GAG GAT GAG TCT  
P L P R T P E Q E S C T I P V Q E D E S  
781 CCA CTC GGC GCC CCA TAT GTT AGA AAC ACC CCG CAG TTC ACC AAG CCT CTG AAG GAA CCA  
P L G A P Y V R N T P Q F T K P L K E P  
841 GGC CTT GGG CAA CTC TGT TTT AAG CAG CTT GGC GAG GGC CTA CGG CCG GCT CTG CCT CGA  
G L G Q L C F K Q L G E G L R P A L P R  
901 TCA GAA CTC CAC AAA CTG ATC AGC CCC TTG CAA TGT CTG AAC CAC GTG TGG AAA CTG CAC  
S E L H K L I S P L Q C L N H V W K L H  
961 CAC CCC CAG GAC GGA GGC CCC CTG CCC CTG CCC AGC CAC CCC TTC CCC TAT AGC AGA CTG  
H P Q D G G P L P L P T H P F P Y S R L  
1021 CCT CAT CCC TTC CCA TTC CAC CCT CTC CAG CCC TGG AAA CCT CAC CCT CTG GAG TCC TTC  
P H P F P F H P L Q P W K P H P L E S F  
1081 CTG GGC AAA CTG GCC TGT GTA GAC AGC CAG AAA CCC TTG CCT GAC CCA CAC CTG AGC AAA  
L G K L A C V D S Q K P L P D P H L S K  
1141 CTG GCC TGT GTA GAC AGT CCA AAG CCC CTG CCT GGC CCA CAC CTG GAG CCC AGC TGC CTG  
L A C V D S P K P L P G P H L E P S C L  
1201 TCT CGT GGT GCC CAT GAG AAG TTT TCT GTG GAG GAA TAC CTA GTG CAT GCT CTG CAA GGC  
S R G A H E K F S V E E Y L V H A L Q G  
1261 AGC GTG AGC TCA AGC CAG GCC CAC AGC CTG ACC AGC CTG GGC AAG ACC TGG GCA GCA CGG  
S V S S S Q A H S L T S L A K T W A A R

FIG. 6-2

FIG. 6B



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1321 GGC TCC AGA TCC CGG GAG CCC AGC CCC AAA ACT GAG GAC AAC GAG GGT GTC CTG CTC ACT  
G S R S R E P S P K T E D N E G V L L T  
1381 GAG AAA CTC AAG CCA GTG GAT TAT GAG TAC CGA GAA GTC CAC TGG GCC ACG CAC CAG  
E K L K P V D Y E Y R E E V H W A T H Q  
1441 CTC CGC CTG GGC AGA GGC TCC TTC GGA GAG GTG CAC AGG ATG GAG GAC AAG CAG ACT GGC  
L R L G R G S F G E V H R M E D K Q T G  
1501 TTC CAG TGC GCT GTC AAA AAG GTG GGC CTC GAA GAA TTT CCG GCA GAG GAG CTG ATG GCA  
F Q C A V K K V R L E V F R A E E L M A

1561 TGT GCA GGA TTG ACC TCA CCC AGA ATT GTC CCT TTG TAT GGA GCT GTG AGA GAA GGG CCT  
C A G L T S P R I V P L Y G A V R E G P  
1621 TGG GTC AAC ATC TTC ATG GAG CTG CTG GAA GGT GGC TCC CTG GGC CAG CTG GTC AAG GAG  
W V N I F M E L L E G G S L G Q L V K E  
1681 CAG GGC TGT CTC CCA GAG GAC CGG GCC CTG TAC TAC CTG GGC CAG GCC CTG GAG GGT CTG  
Q G C L P E D R A L Y Y L G Q A L E G L  
1741 GAA TAC CTC CAC TCA CGA AGG ATT CTG CAT GGG GAC GTC AAA GCT GAC AAC GTG CTC CTG  
E Y L H S R R I L H G D V K A D N V L L  
1801 TCC AGC GAT GGG AGC CAC GCA GCC CTC TGT GAC TTT GGC CAT GCT GTG TGT CTT CAA CCT  
S S D G S H A A L C D F G H A V C L Q P  
1861 GAT GGC CTG GGA AAG TCC TTG CTC ACA GGG GAC TAC ATC CCT GGC ACA GAG ACC CAC ATG  
D G L G K S L L T G D Y I P G T E T H M  
1921 GCT CCG GAG GTG GTG CTG GGC AGG AGC TGC GAC GCC AAG GTG GAT GTC TGG AGC AGC TGC  
A P E V V L G R S C D A K V D V W S S C

FIG. 6C

FIG. 6-3

1981 TGT ATG CTG CAC ATG CTC AAC GGC TGC CAC CCC TGG ACT CAG TTC TTC CGA GGG CCG  
C M L H M L N G C H P W T Q F R G P  
2041 CTC TGC CTC AAG ATT GCC AGC GAG CCT CCG CCT GTG AGG GAG ATC CCA CCC TCC TGC GCC  
L C L K I A S E P P V R E I P P S C A  
2101 CCT CTC ACA GCC CAG GCC ATC CAA GAG GGG CTG AGG AAA GAG CCC ATC CAC CGC GTG TCT  
P L T A Q A I Q E G L R K E P I H R V S  
2161 GCA GCG GAG CTG GGA GGG AAG GTG AAC CCG GCA CTA CAG CAA GTG GGA GGT CTG AAG AGC  
A A E L G G K V N R A L Q Q V G G L K S  
2221 CCT TGG AGG GGA GAA TAT AAA CCA AGA CAT CCA CCG CCA AAT CAA GCC AAT TAC CAC  
P W R G E Y K E P R H P P P N Q A N Y H  
2281 CAG ACC CTC CAT GCC CAG CCG AGA GAG CTT TCG CCA AGG GCC CCA GGG CCC CGG CCA GCT  
Q T L H A Q P R E L S P R A P G P R P A  
2341 GAG GAG ACA ACA GGC AGA GCC CCT AAG CTC CAG CCT CCT CTC CCA CCA GAG CCC CCA GAG  
E E T T G R A P K L Q P P L P P E P P E  
2401 CCA AAC AAG TCT CCT CCC TTG ACT TTG AGC AAG GAG GAG TCT GGG ATG TGG GAA CCC TTA  
P N K S P P L T L S K E E S G M W E P L  
2461 CCT CTG TCC TCC CTG GAG CCA GCC CCT GGC AGA AAC CCC AGC TCA CCA GAG CGG AAA GCA  
P L S S L E P A P A R N P S S P E R K A  
2521 ACC GTC CCG GAG CAG GAA CTG CAG CAG CTG GAA ATA GAA TTA TTC CTC AAC AGC CTG TCC  
T V P E Q E L Q Q L E I E L F L N S L S  
2581 CAG CCA TTT TCT CTG GAG GAG CAA ATT CTC TCG TGC CTC AGC ATC GAC AGC CTC  
Q P F S L E E Q E Q I L S C L S I D S L  
2641 TCC CTG TCG GAT GAC ACT GAG AAG AAC CCA TCA AAG GCC TCT CAA AGC TCG CGG GAC ACC  
S L S D D S E K N P S K A S Q S S R D T  
2701 CTG AGC TCA GGC GTA CAC TCC TGG AGC AGC GGC GAG GGT CGA AGC TCC AGC TGG AAC  
L S S G V H S W S S Q A E A R S S S W N  
2761 ATG GTG CTC GCC CCG GGG CCG CCC ACC GAC ACC CCA AGC TAT TTC AAT GGT GTG AAA GTC  
M V L A R G R P T D T P S Y F N G V K V

FIG. 6D

FIG. 6-4

2821 CAA ATA CAG TCT CTT AAT GGT GAA CAC CTG CAC ATC CGG GAG TTC CAC CGG GTC AAA GTG  
Q I Q S L N G E H L H I R E F H R V K V  
2881 GGA GAC ATC GCC ACT GGC ATC AGC AGC CAG ATC CCA GCT GCA GCC TTC ACC TTG GTC ACC  
G D I A T G I S S Q I P A A A F S L V T  
2941 AAA GAC GGG CAG CCT GTT CGC TAC GAC ATG GAG GTG CCA GAC TCG GGC ATC GAC CTG CAG  
K D G Q P V R Y D M E V P D S G I D L Q  
3001 TGC ACA CTG GCC CCT GAT GGC AGC TTC GCC TGG AGC TGG AGG GTC AAG CAT GGC CAG CTG  
C T L A P D G S F A W S W R V K H G Q L  
3061 GAG AAC AGG CCC TAA CCC TGC CCT CCA CCG GCT CCA CAC TGC CGG AAA GCA GGC TTC  
E N R P \*  
3121 CTG CTC GGT GCA CGA TGC TGC CCT GAA AAC ACA GGC TCA GCC GTT CCC AGG GGA TTG CCA  
3181 GCC CCC CGG CTC ACA GTG GGA ACC AGG GCC TCG CAG CAG CAA GGT GGG GGC AAG CAG AAT  
3241 GCC TCC CAG GAT TTC ACA CCT GAG CCC TGC CCC ACC CTG CTG AAA AAA CAT CCG CCA CGT  
3301 GAA GAG ACA GAA GGA TGG CAG GAG TTA CCT GGG GAA ACA AAA CAG GGA TCT TTT TCT  
3361 GCC CCT GCT CCA GTC GAG TTG GCC TGA CCC GCT TGG ATC AGT GAC CAT TTG TTG GCA GAC  
3421 AGG GGA GAG CAG CTT CCA GCC TGG GTC AGA AGG GGT GGG CGA GCC CTT CGG CCC CTC ACC

Fig. 6F

Fig. 6-5

3481 CTC CAG GCT GCT GTG AGA GTG TCA AGT GTG TAA GGG CCC AAA CTC AGG TTC AGT GCA GAA 3511  
3541 CCA GGT CAG CAG GTA TGC CCG CCC GTA GGT TAA GGG GGC CCT CTA AAC CCC TTG CCT GGC 3571  
3601 CTC ACC TGG CCA GCT CAC CCC TTT TGG GTG TAG GGG AAA AGA ATG CCT GAC CCT GGG AAG 3631  
3661 GCT CCC TGG TAG AAT ACA CCA CAC TTT TCA GGT TGT TGC AAC ACA GGT CCT GAG TTG ACC 3691  
3721 TCT GGT TCA GCC AAG GAC CAA AGA AGG TGT GTA AGT GAA GTG GTT CTC AGT CCC CAG ACA 3751  
3781 TGT GCC CCT TTG CTG CTG GCT ACC ACT CTT CCC CAG AGC AGC AGG CCC CGA GCC CCT TCA 3811  
3841 GGC CCA GCA CTG CCC CAG ACT CGC TGG CAC TCA GTT CCC TCA TCT GTA AAG GTG AAG GGT 3871  
3901 GAT GCA GGA TAT GCC TGA CAG GAA CAG TCT GTG GAT GGA CAT GAT CAG TGC TAA GGA AAG 3931  
3961 CAG CAG AGA GAG ACG TCC GGC CCC CCA GGC CCA CTA TCA GTG TCC AGC GTG CTG GTT CCC 3991  
4021 CAG AGC ACA GCT CAG CAT CAC ACT GAC ACT CAC CCT GCC CTG CCC CTG GCC AGA GGG TAC 4051  
4081 TGC CGA CGG CAC TTT GCA CTC TGA TGA CCT CAA AGC ACT TTC ATG GCT GCC CTC TGG CAG 4111

~~FIG. 6F~~

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4141 GGC AGG GCA GGG CAG TGA CAC TGT AGG AGC ATA GCA AGC CAG GAG ATG GGG TGA AGG GAC 4171  
4201 ACA GTC TTG AGC TGT CCA CAT GCA TGT GAC TCC TCA AAC CTC TTC CAG ATT TCT CTA AGA 4231  
4261 ATA GCA CCC CCT TCC CCA TTG CCC CAG CTT AGC CTC TTC TCC CAG GGG AGC TAC TCA GGA 4291  
4321 CTC ACG TAG CAT TAA ATC AGC TGT GAA TCG TCA GGG GGT GTC TAG CCT CAA CCT CCT 4351  
4381 GGG GCA GGG GAC GCC GAG ACT CCG TGG GAG AAG CTC ATT CCC ACA TCT TGC CAA GAC AGC 4411  
4441 CTT TGT CCA GCT GTC CAC ATT GAG TCA GAC TGC TCC CGG GGA GAG AGC CCC GGC CCC CAG 4471  
4501 CAC ATA AAG AAC TGC AGC CTT GGT ACT GCA GAG TCT GGG TTG TAG AGA ACT CTT TGT AAG 4531  
4561 CAA TAA AGT TTG GGG TGA TGA CAA ATG TTA AAA AAA 4596

FIG. 6-7

FIG. 6G

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[illegible]

7167-1

FIG. 7A

**SUBSTITUTE SHEET (RULE 26)**

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PCT/IL97/00117

~~20746~~

7-2

53 54 59 57 52 56 58 51 55

FIG. 7B

~~SUBSTITUTE SHEET (RULE 26)~~

~~FIG 7C~~

~~TE SHE~~

Fig. 7-3

Fig. 7-3





Fig. 7-5.

~~FIG. 7E~~

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PCT/DL97/00117

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369	S	E	S	S	L	I	N	S	L	F	G	G	I	G	E	E	A	P	T	K	P	N	P	O	G	H	S	L	S	S	E	N	399	
258	S	Y	W	P	N	L	K	K	M	Y	K	D	K	P	I	T	N	T	A	E	E	T	A	R	I	D	V	M	N	S	W	L	N	299

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FIG. 7F

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~~PCTAL97/00117~~

Fig. 7-7

~~FIG. 7G~~

~~E SHEET~~

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8-7-8

FIG. 7H

SUBSTITUTE SHEET (RULE 26)

[illegible]

Fig. 7-9

FIG. 7I

~~SUBSTITUTE SHEET (RULE 26)~~

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[illegible]

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[illegible]

7-12

FIG. 7L

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s3 s4 s9 s7 s2 s6 s8 s1 s5 s3 s4 s9 s7 s2 s6 s8 s1 s5

FIG. 7-13

~~FIG. 7M~~

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FIG. 7N

~~SUBSTITUTE SHEET (RULE 26)~~

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s3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
s4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
s9	146	R	K	K	S	S	K	S	L	A	H	A	G	V	A	L	A	K	P	L	P
s7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
s2	242	L	S	I	R	T	S	Q	G	H	N	L	G	-	-	-	N	F	G	Q	E
s6	313	R	L	S	I	A	Q	R	R	P	L	S	A	E	S	N	I	G	D	I	L
s8	905	P	S	L	K	M	K	Q	K	V	N	R	S	N	S	T	V	S	T	S	N
s1	204	P	V	F	T	Q	S	R	P	P	P	S	S	N	I	H	R	P	K	P	S
s5	801	E	K	R	C	S	L	N	S	I	E	S	S	L	Q	K	I	N	K	A	Y

[illegible]

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~~FIG. 70~~

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[illegible]

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FIG. 7P

~~SUBSTITUTE SHEET (RULE 26)~~

FIG. 7Q

ANNOTATED SHEET SHOWING CHANGES  
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S3	75	S	V	R	X	G	T	V	E	D	L	-	L	A	A	N	H	S	N	T	T	K	E	V	R	C	R	P	-	-	103				
S4	75	S	V	R	X	G	T	V	E	D	L	-	L	A	A	N	H	S	N	T	T	K	E	V	R	C	R	P	-	-	103				
S9	344	S	V	S	S	Q	A	H	S	L	-	-	T	S	L	A	K	T	W	A	R	G	S	R	S	R	E	P	S	K	T	E	375		
S7	57	S	V	R	K	S	S	I	G	I	F	S	K	A	H	-	N	T	L	E	E	D	T	B	D	Q	S	I	-	-	-	09			
S2	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	392			
S6	393	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	412			
S8	1103	G	K	N	K	P	L	N	Q	A	K	T	P	K	R	T	I	R	T	A	H	E	A	S	L	A	R	K	N	S	V	-	1135		
S1	391	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	402			
S5	982	E	I	N	S	R	I	R	L	E	A	I	K	T	L	E	K	T	M	K	R	N	P	R	Q	M	G	K	V	L	D	A	T	1014	
S3	104	Q	E	S	G	L	L	N	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	131			
S4	104	Q	E	S	G	L	L	N	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	131			
S9	376	D	N	E	G	V	L	L	T	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	401			
S7	90	D	T	P	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94			
S2	393	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	393			
S6	413	K	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	414			
S8	1136	K	L	K	R	O	N	T	K	M	W	G	T	R	M	V	E	V	T	E	N	H	M	V	S	I	N	K	A	K	N	S	K	G	1168
S1	403	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	403		
S5	1015	G	I	G	N	K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1027		

FIG. 7R

FIG 7-18

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S3	132	W	K	L	T	Y	R	S	G	S	G	F	V	P	R	G	A	F	G	K	V	Y	L	A	Q	D	M	K	J	K	G	F	M	164	
S4	132	W	K	L	T	Y	R	N	G	S	D	I	F	T	P	R	G	A	F	G	K	V	Y	L	A	Q	D	M	K	J	K	G	F	M	164
S9	402	H	Q	L	R	-	-	-	-	-	-	-	L	G	H	G	S	A	F	G	K	V	Y	L	A	Q	D	M	K	J	K	G	F	M	426
S7	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	122	
S2	394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	420	
S6	415	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	442	
S8	1169	E	Y	K	E	F	A	W	M	K	G	E	M	I	G	S	G	S	F	G	S	V	Y	L	A	Q	D	M	K	J	K	G	F	M	1201
S1	403	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	429	
S5	1028	S	N	V	S	M	R	W	Q	K	R	S	F	I	G	G	G	T	F	G	S	V	Y	L	A	Q	D	M	K	J	K	G	F	M	1060
S3	165	A	C	K	L	I	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	169	
S4	165	A	C	K	L	I	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	169	
S9	427	A	C	V	K	K	V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	431	
S7	123	A	C	V	K	K	V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	127	
S2	421	A	C	V	K	K	V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	425	
S6	443	V	K	Q	V	E	I	K	N	N	I	G	V	P	T	D	N	N	K	Q	A	N	S	D	E	N	N	E	Q	E	E	Q	Q	Q	475
S8	1202	A	V	K	Q	V	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1207	
S1	430	A	V	K	Q	V	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	436	
S5	1061	A	V	K	Q	V	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1068	

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FIG. 7S



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182	182	444	153	451	509	1232	458	1087
S3	S4	S9	S7	S2	S6	S8	S1	S5

720 Fe

FIG. 7T

**SUBSTITUTE SHEET (RULE 26)**

S3	215	VLEK	ESCG	CGP	MRE	FE	II	-	WV	TK	HV	LK	GG	DE	HL	SS	246
S4	215	VLEK	ESCG	CGP	MRE	FE	II	-	WV	TK	HV	LK	GG	DE	HL	SS	246
S9	477	VLEK	ESCG	CGP	MRE	FE	II	-	WV	TK	HV	LK	GG	DE	HL	SS	508
S7	186	VLEK	ESCG	CGP	MRE	FE	II	-	WV	TK	HV	LK	GG	DE	HL	SS	217
S2	484	VLEK	ESCG	CGP	MRE	FE	II	-	WV	TK	HV	LK	GG	DE	HL	SS	515
S6	542	VLEK	ESCG	CGP	MRE	FE	II	-	WV	TK	HV	LK	GG	DE	HL	SS	573
S8	1265	VLEK	ESCG	CGP	MRE	FE	II	-	WV	TK	HV	LK	GG	DE	HL	SS	1296
S1	491	VLEK	ESCG	CGP	MRE	FE	II	-	WV	TK	HV	LK	GG	DE	HL	SS	522
S5	1120	VLEK	ESCG	CGP	MRE	FE	II	-	WV	TK	HV	LK	GG	DE	HL	SS	1151
S3	247	KKV	HRD	I	K	P	S	N	I	V	F	M	S	-	-	-	275
S4	247	KKV	HRD	I	K	P	S	N	I	V	F	M	S	-	-	-	275
S9	509	KKV	HRD	I	K	P	S	N	I	V	F	M	S	-	-	-	541
S7	218	KKV	HRD	I	K	P	S	N	I	V	F	M	S	-	-	-	249
S2	516	KKV	HRD	I	K	P	S	N	I	V	F	M	S	-	-	-	547
S6	574	KKV	HRD	I	K	P	S	N	I	V	F	M	S	-	-	-	604
S8	1297	KKV	HRD	I	K	P	S	N	I	V	F	M	S	-	-	-	1327
S1	523	KKV	HRD	I	K	P	S	N	I	V	F	M	S	-	-	-	555
S5	1152	KKV	HRD	I	K	P	S	N	I	V	F	M	S	-	-	-	1183

FIG. 7-24

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s3	295	S	P	E	V	L	O	R	-	-	G	I	S	T	K	A	D	Y	S	G	A	T	L	H	M	C	G	J	324
s4	295	S	P	E	V	L	O	R	-	-	G	H	S	T	K	A	D	Y	S	G	A	T	L	H	M	C	G	J	324
s9	564	A	P	E	V	V	L	G	H	-	S	C	D	A	K	V	D	V	W	S	G	C	M	L	N	G	G	593	
s7	269	A	P	E	V	V	L	Q	T	-	G	H	S	F	S	A	D	W	S	V	G	C	T	E	M	A	T	298	
s2	571	A	P	E	V	V	K	Q	T	M	H	-	-	E	K	T	D	W	S	L	G	C	L	E	M	L	S	600	
s6	626	P	E	V	V	K	Q	T	A	T	-	-	A	K	A	D	I	W	S	T	G	C	V	E	E	M	T	655	
s8	1347	A	P	E	M	V	D	T	K	Q	G	Y	S	-	-	A	K	V	D	I	W	S	L	G	C	V	E	1377	
si	517	A	P	E	V	L	R	G	Q	Q	-	Y	G	-	-	R	S	E	D	V	W	S	V	G	C	A	I	606	
\$5	1217	A	P	E	T	I	S	G	S	A	V	K	G	K	E	A	D	D	V	W	A	L	G	C	V	E	E	M	1240

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FIG. 7V

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S3	325	P	P	W	V	-	-	K	H	V	P	R	S	A	Y	P	S	V	L	Y	I	K	I	A	S	E	H	P	I	P	E	D	I	A	G	355
S4	325	P	P	W	V	-	-	K	H	V	P	R	S	A	Y	P	S	V	L	Y	I	K	I	A	S	E	H	P	I	P	E	D	I	A	G	355
S9	594	H	P	W	T	-	-	Q	F	F	R	G	P	V	A	C	L	F	H	I	K	I	A	S	E	H	P	I	P	E	D	I	A	G	620	
S7	299	H	P	W	S	-	-	Q	Q	N	C	Q	M	Q	A	I	F	R	I	G	T	K	S	H	P	I	P	E	D	I	A	G	329			
S2	601	H	P	Y	-	-	-	P	N	C	S	Q	M	Q	A	I	F	R	I	G	T	K	S	H	P	I	P	E	D	I	A	G	625			
S6	656	H	P	-	-	-	-	P	D	F	S	Q	M	Q	A	I	F	R	I	G	T	K	S	H	P	I	P	E	D	I	A	G	680			
S8	1378	R	P	W	-	-	-	S	N	L	S	E	V	A	L	I	M	H	V	A	G	R	I	P	Q	L	P	E	D	I	A	G	1407			
S1	607	R	P	W	N	A	E	K	H	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	635			
S5	1250	R	P	W	S	N	L	D	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1277			

S3	356	D	C	S	S	-	-	P	G	M	R	E	A	C	K	I	D	F	N	F	A	-	-	-	-	-	-	-	-	-	-	-	-	-	382
S4	356	D	C	S	S	-	-	P	G	M	R	E	A	C	K	I	D	F	N	F	A	-	-	-	-	-	-	-	-	-	-	-	-	-	382
S9	621	S	C	A	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	653	
S7	330	S	C	A	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	358	
S2	626	S	C	A	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	658	
S6	681	S	C	A	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	713	
S8	1408	S	C	A	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1440	
S1	636	S	C	A	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	668	
S5	1278	S	C	A	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1310	

FIG. 7-23

FIG. 7W

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Fig 7-24

~~FIG. 7X~~

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418	S3	450
418	S4	450
720	S9	752
425	S7	457
0	S2	659
0	S6	717
0	S8	1478
0	S1	672
0	S5	1314
451	S3	461
451	S4	461
753	S9	785
458	S7	490
0	S2	659
0	S6	717
0	S8	1478
0	S1	672
0	S5	1314

FIG. 7-25

FIG. 7Y

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[illegible]

Fig 7-26

~~FIG. 72~~

**SUBSTITUTE SHEET (RULE 26)**

~~45~~ 46

[illegible]

Fig 7-27

~~FIG. 7AA~~



